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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/253,793	02/22/1999	JEFFREY C. ROBISON	4164-P	6093

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EXAMINER

KEASEL, ERIC S

ART UNIT PAPER NUMBER

3754

DATE MAILED: 05/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/253,793

Applicant(s)

ROBISON ET AL.

Examiner

Eric Keasel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to as failing to provide clear support for the claim terminology. 37 CFR § 1.75(d)(1) requires that terms and phrases used in the claims find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description (see MPEP 608.01(o)). Specifically, the term “ductile material” does not appear in the specification.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 13 and 15-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 13 recites “a plug head band made of ductile material” in lines 3 and 4; however, there is no clear support for such a recitation in the application, as originally filed. The only mention of the ductility of the plug head band in the application, as originally filed, is on page 19, lines 7-9. The material selected is to have “reasonable ductility”. Although a relative term such as “ductile material” does not have clear boundaries, it would appear that the specification

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means for the material selection to include non-ductile materials that have “reasonable ductility”.

The limitation “ductile material” in claim 13 appears to be a limitation with a different scope than the originally filed disclosure. This is a new matter rejection.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 13 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "ductile material" in claim 13 is a relative term which renders the claim indefinite. The term "ductile material" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Especially in light of applicant's arguments, the terms “ductile material” in the claims and “reasonable ductility” in the specification are indefinite. What is the difference in scope between a “ductile material” and a material that has “reasonable ductility”?

6. In light of the above informalities, the claims have been examined as could best be understood by the examiner. The examiner's failure to apply prior art to any of the claims should not be construed as an indication of allowable subject matter.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 13 and 15-20 (as understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Maier et al. in view of Szymaszek et al.

Maier et al. disclose a ceramic valve plug head (2), a valve plug stem (3), and a plug head band (4). The preferred materials for the band include aluminum titanate (an aluminum alloy). The band is in contact with the head and the stem.

The band of Maier et al. has a first side (engaging the head) greater in height than a second side (its top or bottom). However, applicant may intend that the second side be the side opposite the first side. Maier et al. do not show this. It would have been an obvious matter of design choice to have made the first side greater in height than the second (opposite) side, since applicant has not disclosed that doing so solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the ratio of the heights of the sides in any proportion as long as the friction fit between the retainer and the plug is great enough so that the retainer does not slip. In fact, Maier et al. use this friction as their means for fastening.

Maier et al. do not disclose means for fastening as a plurality of nuts and bolts or pins. Szymaszek et al. disclose a similar valve plug head (30), valve plug stem (20), and valve head plug retainer (42). Szymaszek et al. use a plurality a bolts threaded through the retainer and into

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the plug (obviating the need for nuts). The bolts are considered an equivalent of the pins. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the means for fastening of Szymaszek et al. in the invention of Maier et al. in order to secure the head, stem, and retainer as taught by Szymaszek et al.

### *Response to Arguments*

9. Applicant's arguments filed 25 March 2002 have been fully considered but they are not persuasive.

Applicant argues that the aluminum titanate of Maier et al. is a ceramic and therefore is so brittle that a combination of Maier et al. and Szymaszek et al. would yield an inoperable device. Applicant also refers to a section of the Maier reference (column 3, lines 12-29) to establish that aluminum titanate is a ceramic material. However, applicant appears to be ignoring that Maier (in the same section) refers to this being “an elastic ceramic insulating resilient body”. Elasticity and resiliency are properties of the ceramic material used by Maier et al. Although elasticity and resiliency are not opposites of “brittle” or synonyms for “ductile”, the material selection of Maier et al. has “reasonable ductility” by any reasonable definition of “reasonable ductility” unless applicant is changing definitions in the middle of prosecution.

### *Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen can be reached on (703) 308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3588 for regular communications and (703) 305-3588 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

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May 29, 2002

  
Lesley D. Morris  
Primary Examiner  
Au 3752